

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-9. (Cancelled)

Claim 10. (Currently amended) A diagnostic primer comprising in 5' to 3' order

(i) a template binding region and

(ii) a tail comprising a linker and a target binding region, said template binding region being complementary to a template nucleic acid sequence of a sample nucleic acid, said sample nucleic acid additionally comprising a target nucleic acid sequence, and said primer being extendable when hybridized to said template nucleic acid sequence in the presence of appropriate nucleoside triphosphates and an agent for polymerization thereof to define a primer extension product, said tail remaining uncopied,
and wherein the target binding region [hybridizes to] is hybridizable with a complementary sequence in [an] said primer extension product [of the primer] corresponding to the target nucleic acid, and the complementary sequence is less than 200 base pairs from the template binding region.

Claim 11. (Currently Amended) A diagnostic primer comprising in 5' to 3' order

(i) a template binding region and

(ii) a tail comprising a linker and a target binding region,
said template binding region being complementary to a template nucleic acid sequence of a sample nucleic acid, said sample nucleic acid additionally comprising a target nucleic acid sequence, and said primer being extendable when hybridized to said template nucleic acid sequence in the presence of appropriate nucleoside triphosphates and an agent for polymerization thereof to define a primer extension product, said tail remaining uncopied,
and wherein the target binding region [hybridizes to] is hybridizable with a complementary sequence in [an] said primer extension product [of the primer] corresponding to the target nucleic acid.

Claim 12 (cancelled)

Claim 13. (Previously Presented) A primer as claimed in claim 10 or 11 wherein the linker comprises a blocking moiety which prevents polymerase mediated copying of the primer tail.

Claim 14. (Previously Presented) A primer as claimed in claim 10 or 11 and further comprising at least one component of an integral signaling system to indicate hybridisation of the

target binding region to a complementary sequence in a primer extension product of the primer.

Claim 15. (Original) A primer as claimed in claim 14 wherein the primer tail carries an intercalating dye.

Claim 16. (Original) A primer as claimed in claim 14 wherein the primer tail comprises a fluorophore for the detection of target binding by fluorescence polarisation.

Claim 17 (Currently Amended) A diagnostic primer as claimed in claim 14 and further having a separate species comprising at least one component of an integral signaling system, wherein said component is releasably attached to the primer tail.

Claim 18. (Original) A primer as claimed in claim 17 wherein the signalling system comprises energy transfer between fluorophore and quencher species.

Claim 19. (Original) A primer as claimed in claim 14 wherein the primer tail acts as a quencher species.

Claim 20. (Original) A primer as claimed in claim 13 wherein the primer tail includes one or more regions of internal hybridisation to stabilise one or more component(s) of the signaling system in a given position.

Claim 21. (Original) A primer as claimed in claim 20 wherein the primer tail comprises a self-complementary stem duplex having a fluorophore quenched by a quencher species, and

wherein the fluorophore becomes unquenched when the stem duplex is disrupted.

Claim 22. (Previously Presented) A primer as claimed in claim 10 or 11 which further comprises a capture region which hybridises to complementary sequence on a solid phase.

Claim 23. (Cancelled)

Claim 24. (Previously Presented) A kit which comprises at least one primer as claimed in claim 10 or 11 together with packaging and instructions for use.